

REMARKS/ARGUMENTS

Reconsideration of the present application, as amended, is respectfully requested.

The December 8, 2003 Office Action and the Examiner's comments have been carefully considered. In response, claims are cancelled, amended and added, and remarks are set forth below in a sincere effort to place the present application in form for allowance. The amendments are supported by the application as originally filed. Therefore, no new matter is added.

CLAIM OBJECTIONS

In the Office Action, claim 6 is objected to under 37 CFR 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim.

In response, claim 6 is cancelled, rendering the rejection under 37 CFR 1.75(c) moot.

REJECTIONS UNDER 35 USC 112, SECOND PARAGRAPH

In the Office Action claims 31 and 33 are rejected under the second paragraph of 35 USC 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In response, claims 31 and 33 are cancelled, thereby rendering the rejection under the second paragraph of 35 USC 112 moot.

PRIOR ART REJECTIONS

In the Office Action claims 1-4, 6-15 and 17-33 are rejected under 35 USC 102(e) as being anticipated by USP 6,351,613 (Ohkado). Claims 5 and 16 are rejected under 35 USC 103(a) as being unpatentable over Ohkado in view of USP 5,768,640 (Takahashi et al.).

In response, claims are cancelled, and claims are amended in a sincere effort to more clearly define the present claimed invention over the cited references.

Independent Claim 1

Ohkado (USP 6,351,613) discloses prohibiting a receiving means from receiving information during a predetermined period after the receiving means terminates signal reception, and storing the information received immediately before the prohibition in a storage medium. Ohkado merely discloses the prohibition of receiving information again during a predetermined period after certain reception. In other words, in Ohkado if the timer reset in step S113 does not count a predetermined time as

indicated in step S110 in FIG. 2, reception of the GPS information in step S112 is not executed (see column 3, lines 49-56 of Ohkado).

Furthermore, it is only when "Yes" is determined in step S107 (see FIG. 2 and column 3, lines 17-21 of Ohkado) that the timer determination of step S110 and the reception of the GPS information in step S112 proceed to the next step. In other words, the timer determination of step S110 and the reception of the GPS information in step S112 are not executed until the release switch 32 is turned on. Therefore, the timing of reception of the GPS information is limited to the time when the release switch is turned on.

In contrast, the present claimed invention as defined by amended claim 1 recites a positioning timing control means for causing the positioning means to execute positioning at a predetermined timing asynchronous to a photographing timing of the photographing means to thereby obtain positional information in association with photographed images. In other words, the present claimed invention is directed to receiving the GPS information and storing the information obtained by the reception in association with the photographed image when predetermined conditions are met, irrespective of the time that the shutter is pushed down.

That is, Ohkado does not disclose, teach or suggest a camera including:

1. positioning timing control means for causing the positioning means to execute positioning at a predetermined timing asynchronous to a photographing timing of the photographing means to thereby obtain positional information; and/or

2. memory means for storing a plurality of images photographed by the photographing means; and/or

3. memory control means for storing the positional information obtained by the positioning timing control means in the memory means in association with the plurality of photographed images.

None of the other references of record close the gap between the present claimed invention as defined by claim 1 and Ohkado.

In view of the foregoing, claim 1 is patentable over Ohkado and all of the references of record under 35 USC 102(e) as well as 35 USC 103.

Independent Claim 8

Claim 8 has been amended to be in independent form.

Ohkado (see column 3, lines 56-65 and step S110 of FIG. 2) disclose that GPS information is received in step S112 only after

the timer is reset (step S113), after the reception of GPS information occurs (step S112), and after it is determined that predetermined time T1 has elapsed (step S110).

As discussed above in connection with claim 1, the timer determination in step S110 of Ohkado is executed only when it is determined in step S107 that the release switch 32 is turned on. In other words, in Ohkado, even if a predetermined time has passed since the previous reception of GPS information, reception of GPS information is not executed again until the release switch is turned on. When the release switch is turned on, i.e. when photographing is instructed, the timer determination is executed and, if necessary, the GPS information is received.

In contrast to the teaching of Ohkado, in amended claim 8 positioning is executed by the positioning means (under control of the positioning timing control means) when a predetermined time has passed without photographing (after photographing by the photographing means). This processing is not disclosed, taught or suggested in Ohkado.

None of the other references of record close the gap between the present claimed invention as defined by claim 8 and Ohkado..

In view of the foregoing, claim 8 is patentable over Ohkado and the other references of record under 35 USC 102(e) as well as 35 USC 103.

Independent Claim 9

Claim 9 has been amended to be an independent claim and recites that "when photographing is instructed by said photographing instruction means during the positioning of the positioning means," the second memory control means stores "the photographed image acquired by the photographing control means in said memory means in association with the positional information stored in said memory by said first memory control means."

In other words, claim 9 determines whether photographing is instructed by the photographing instruction means during the positioning of the positioning means (see claim 9, lines 11-15). Executing such a determination during the positioning of the positioning means is not disclosed, taught or suggested in Ohkado.

Ohkado (step S112 of FIG. 2) discloses positioning of the positioning means (reception of GPS information). However, reception of the GPS information is completed in this step only. Ohkado does not disclose, teach or suggest that any processing is executed during the positioning in step S112. This feature is recited in claim 9.

None of the other references of record close the gap between the present claimed invention as defined by claim 9 and Ohkado.

In view of the foregoing, claim 9 is patentable over Ohkado and the other references of record under 35 USC 102(e) and well as 35 USC 103.

Independent Claim 12

Ohkado discloses a technique of receiving GPS information and adding the received information to the end of the frame when series photographing is ended at the last frame. In other words, in Ohkado, when images photographed in a series of frames are reproduced, the GPS information corresponding to the series of frames cannot be acquired until the image in the last frame is reproduced. In other words, the GPS information is directly associated with only the last image in the series of frames.

In contrast, claim 12 recites that the GPS information corresponding to each of the images acquired from the series photographing executed by the photographing means is stored in memory in association with each of the photographs. Thus, the GPS information corresponding to each of the photographed images is stored and the GPS information corresponding to each frame can be acquired. This limitation is not disclosed, taught or suggested in Ohkado.

None of the other references of record close the gap between the present claimed invention as defined by claim 12 and Ohkado.

In view of the foregoing, claim 12 is patentable over Ohkado and the other references of record under 35 USC 102(e) as well as 35 USC 103.

Independent Claim 15

Amended claim 15 recites acquiring GPS information during series photographing and storing the acquired GPS information in association with a plurality of photographed images.

Ohkado does not disclose, teach or suggest memory control means for storing positional information obtained by positioning means in the memory means in association with the plurality of photographed images acquired by the photographing means as recited in claim 15.

None of the other references of record close the gap between the present claimed invention as defined by claim 15 and Ohkado.

In view of the foregoing, claim 15 is patentable over Ohkado and the other references of record under 35 USC 102 as well as 35 USC 103.

Independent Claim 16

Takahashi et al. (USP 5,768,640) disclose a technique of storing GPS data together with accuracy information of the GPS data, comparing the accuracy of the stored GPS data with the

accuracy of newly input GPS information, and overwriting the stored GPS data only if the newly input GPS information is more accurate.

Takahashi et al. teach merely comparing the accuracy of the GPS information and selecting the information with a higher accuracy.

In contrast, claim 16 recites "computing" new positional information by using the first positional information acquired before or immediately after the series photographing instruction is given and the second positional information acquired immediately before or immediately after the series photographing is finished (see claim 16, lines 15-27).

The feature of computing new positional information with two kinds of GPS information is not disclosed, taught or suggested in Takahashi et al. or Ohkado. Takahashi et al. merely disclose two kinds of positional information, i.e., the previously received positional information and using one or the other, but does not teach computing new positional information.

For this reason, inter alia, a person of ordinary skill in the art at the time the invention was made could not have arrived at the present claimed invention as defined by claim 16 by combining Ohkado and Takahashi et al. (without the benefit of

hindsight regarding the present invention) to compute new positional information by using the first positional information (acquired before or immediately after the series photographing instruction is given) and the second positional information (acquired immediately before or immediately after the series photographing is finished).

None of the other references of record close the gap between the present claimed invention as defined by claim 16 and Ohkado taken in combination with Takahashi et al.

In view of the foregoing, claim 16 is patentable over the cited references when taken either alone under 35 USC 102 or in combination under 35 USC 103.

Independent Claim 18

Amended claim 18 recites the feature that photographing by the photographing means is inhibited while the positioning is carried out by the positioning means.

Ohkado (step S112 of FIG. 2 and step S213 of FIG. 4) discloses that only reception of the GPS information is completed in each of the steps. Ohkado does not disclose what processing is executed while the GPS information is received in step S112 or S213, for example, while photographing is instructed.

In regard to this matter, the Examiner made the following statement in the Office Action concerning prior claim 25: "The photographing step S114 is not allowed to begin until the position information receiving step S110 is completed."

This statement merely indicates that in Ohkado the processing of the position information receiving step and the processing of the photographing step are executed in order.

However, in a case where, for example, a photographing instruction is given or a photographing order is given for some reason while the processing of the position information receiving step is executed, if there is no determination as to whether photographing is instructed during reception of the positional information to make a suitable response to the instructions (as recited in the claim), it cannot be determined which of the reception of the positional information and the photographing should be executed and, in the worst case, there may be a danger of breaking the device.

On the other hand, parallel prohibition processing of determining whether photographing is instructed during reception of the positional information is extremely effective in the present claimed invention as defined by claim 18.

The present claimed invention as defined by claim 18 is patentable over Ohkado because Ohkado does not disclose, teach or

suggest a camera including means for inhibiting photographing by photographing means while positioning is carried out by the positioning means (see claim 18, lines 9-10).

None of the other references of record close the gap between the present claimed invention as defined by claim 18 and Ohkado.

In view of the foregoing, claim 18 is patentable over Ohkado when taken either alone or in combination with any of the other references of record.

Independent Claim 19

Amended claim 19 is directed to a camera including notification means for notifying that the positioning is in progress while the positioning is carried out by the positioning means.

In the Office Action the Examiner cites Ohkado, column 4, lines 26 to 28 in his remarks regarding prior claim 25.

The LED 19 in the cited portion of Ohkado merely identifies that "the GPS information is not received during the current photographing." In other words, if it is determined in step S110 of FIG. 2 of Ohkado that the elapsed time is less than T1, it is merely notified that reception of the GPS information in step S112 is not executed for current photographing. Thus, the

notification is not executed until the shutter is pushed down (step S107: YES).

In contrast, in the present claimed invention, there is notification that the positioning is in progress while the positioning is carried out. This notification allows the user to photograph without positioning or photograph immediately after positioning. This notification can be carried out even if the shutter is not pushed down as is necessary in Ohkado.

None of the other references of record close the gap between the present claimed invention as defined by claim 19 and Ohkado.

In view of the foregoing, claim 19 is patentable over Ohkado and the other references of record under 35 USC 102 as well as 35 USC 103.

Independent Claim 22

Amended claim 22 is directed to a camera which includes control means for controlling the positioning operation and the photographing operation in such a way that the photographing timing of the photographing means and the positioning timing of the positioning means do not overlap.

If the photographing timing and the positioning timing are asynchronous, these two timings may overlap. However, claim 22 recites controlling the positioning operation and the

photographing operation so as to prevent the photographing timing and the positioning timing from overlapping.

In Ohkado, the photographing timing and the receiving timing of GPS information are not asynchronous. Therefore, Ohkado does not disclose, teach or suggest means to prevent overlap of the timings as recited in claim 22.

None of the other references of record close the gap between the present claimed invention as defined by claim 22 and Ohkado.

In view of the foregoing, claim 22 is patentable over the references of record under 35 USC 102 as well as 35 USC 103.

NEW CLAIMS

New claims 34-42 are added to the present application. New claims 34-42 respectively correspond to claims 1, 8, 9, 12, 15, 16, 18, 19 and 22. Claims 34-42 are patentable over the cited references in view of the reasons set forth above in connection with claims 1, 8, 9, 12, 15, 16, 18, 19 and 22. Claims 34-42 correspond to claims 1, 8, 9, 12, 15, 16, 18, 19 and 22 written in non means-plus-function format to provide a different scope of protection for the invention.

Submitted herewith is a check in the amount of \$688.00 for the presentation of 8 independent claims above the highest number of independent claims for which payment was previously made.

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Amendment dated April 2, 2004
Reply to Office Action of December 8, 2003

That is, the present application now includes 18 independent claims and the highest number of independent and total claims for which payment was previously made is 10.

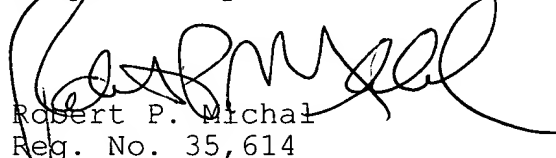
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Entry of this Amendment, allowance of the claims and the passing of this application to issue are respectfully solicited.

If the Examiner disagrees with any of the foregoing, the Examiner is respectfully requested to point out where there is support for a contrary view.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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Encls.: Petition for Extension of Time
Check in the Amount of \$688.00